

## Interview Summary

Application No.

09/142,660

Applicant(s)

HINTSCHE ET AL.

Examiner

Bradley L. Sisson

Art Unit

1634

All participants (applicant, applicant's representative, PTO personnel):

(1) Bradley L. Sisson.

(3) \_\_\_\_\_.

(2) Patricia D. Granados, Reg. No. 33,683.

(4) \_\_\_\_\_.

Date of Interview: 11 July 2002.

Type: a) ☐ Telephonic b) ☐ Video Conference  
c) ☒ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☐ No.

If Yes, brief description: draft version of claims received 7/10/02 via facsimile transmission; attached hereto.

Claim(s) discussed: 21-34, 37-40, 42-55, 59-62 and proposed new claims 63-70.

Identification of prior art discussed: US Patent 5,653,939 (Hollis et al.).

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.


Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

i) ☒ It is not necessary for applicant to provide a separate record of the substance of the interview (if box is checked).

Unless the paragraph above has been checked, THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

  
Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

#### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

##### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

##### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case unless both applicant and examiner agree that the examiner will record same. Where the examiner agrees to record the substance of the interview, or when it is adequately recorded on the Form or in an attachment to the Form, the examiner should check the appropriate box at the bottom of the Form which informs the applicant that the submission of a separate record of the substance of the interview as a supplement to the Form is not required.

It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

#### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Mr. Sisson indicated that the use of "thin" was a relative term, rendering claim 21 indefinite. Mr. Sisson expressed concern over the aspect that none of the claims recite a lower limit to the breadth of the gap. Mr. Sisson directed attention to the phrase "antigens and haptens" as presented in draft claim 21, and that such a phrase fairly broadens the scope of the claims to where it encompasses the detection of virtually any and all matter.

Mr. Sisson expressed concern over an apparent lack of antecedent support for "the phase angle" in claim 24.

Mr. Sisson inquired as to how the binding was taking place in claim 25, noting that a protein or DNA that may come into direct contact with the electrode could well be degraded or denatured, effectively rendering it useless.

Mr. Sisson asked for clarification as to how the aspect of "contacting the molecule or molecular complex with the ultra-microelectrode array" in claim 21 is further limited by claim 35 where the molecule or molecular complex is located in the gap between the electrodes. Mr. Sisson also directed attention to claim 63 where the molecule or molecular complex is to be "positioned" in the gap between the electrodes not by the electric field, but by "chemical binding, adhesion, or condensation reactions." Mr. Sisson indicated that it was confusing as to just what the molecule or molecular complex was bound to when in the gap.

Mr. Sisson requested clarification as to how "a direct-current component" in claim 27 further limits claim 21 wherein step b) one produces an "alternating electric field."

Mr. Sisson requested clarification as to what constituted the "first molecule" as well as "a molecular layer" (claim 37). Ms. Granados indicated agreement that the binding relationship between the antigen and antibody would be further clarified (claims 40 and 64).

Claim 44 was discussed. Mr. Sisson indicated that it was confusing as to how the phrase "the second molecule" was to be interpreted as encompassing a plurality of different nucleic acid molecules. Mr. Sisson also directed attention to the aspect of just how and what type of complex was to form, noting that while the claim indicates that the three polynucleotides are "capable of forming a triple helix," the claim did not actually require that any triplex structure be formed.

Agreement was reached that claim 61 was improper. Ms. Granados indicated that Claim 61 was to have depended from claim 21.

Mr. Sisson requested that claim 62 be amended so to more clearly reflect how or upon what the array is stacked.

Mr. Sisson directed attention to claim 67, noting that the clause "said ultra-microelectrode arrays are metals or carbon materials" effectively eliminates the insulating material that is required of the microelectrode array recited in claim 21, and from which the instant Claim 67 depends.

Mr. Sisson and Ms. Granados discussed the aspect of the microelectrode structures of claim 70 being "in a form selected from the group consisting of meander form, a finger-like interdigital arrangement form and a circular parallel arrangement form." Mr. Sisson expressed concern over how these various arrangements are to be considered to embody an "array" as is required. Ms. Granados indicated that she would seek clarification from applicant.

Ms. Granados presented argument that the patent of Hollis et al., (US Patent 5,653,939) does not anticipate the claimed invention as a) the electrodes are not in the same plane; and b) the wells are 100 microns deep; attention was directed to Figure 3. Mr. Sisson noted that the claims currently before the Office, and even those presented in draft version for discussion do not require that the electrodes be in the same plane, noting that the electrode structures can be stacked, citing claim 62. Mr. Sisson indicated that Figure 3 does not depict wells or channels that are 2 microns wide and 100 microns deep, but rather, wells that are 2 microns wide, 100 microns long and approximately 0.5 microns deep as column 6, line 18, teaches that the wells were formed by etching "to a depth of about 0.5 microns...."